

Climatological Data for August, 1909.
DISTRICT No. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

TEMPERATURE.

The mean temperatures were generally above the normal, except in Arizona, where the excessive cloudiness prevented the occurrence of the usual high day temperatures. The night temperatures were practically normal. There was unusually little change from day to day, and no strongly defined hot or cool periods. The mean temperature of the 145 stations reporting was 74.0°; the highest local mean was 94.0°, at Fort Mohave, Ariz., and the lowest, 48.4°, at Corona, Colo. The extremes were 118°, at Mohawk Summit, Ariz., and 25°, at Daniel, Wyo. By subdivisions the means and departures were: western Wyoming, 62.9°, departure, +3.8°; western Colorado, 64.6°, +0.4°; southeastern Utah, 70.4°, +0.8°; western New Mexico, 71.7°, normal; Arizona, 80.5°, -1.1°.

PRECIPITATION.

For the district, as a whole, the month was the wettest summer month since the beginning of the records; and was even more remarkable for the abnormal distribution of the rainfall than for its intensity. In the mountains showers occurred daily, individual stations reporting as many as 27 days with measurable rainfall, but the daily amounts were seldom excessive. In the desert, on the other hand, showers were less frequent, but their intensity was almost unprecedented. At Yuma, Ariz., the twenty-four-hour rainfall on the 15-16th was 0.91 inch greater than the annual normal; at The Needles, Cal., the monthly rain was more than twice the yearly mean; and at several other points more rain fell in the month than normally

falls in a year. The great area covered by these downpours was as remarkable as their intensity; on the 30th-31st more than 2 inches of rain fell at nearly all the stations in the lower Colorado Valley and on the eastern slope of the Wasatch Mountains, a belt over 500 miles in length. In Utah this storm is said to have been the heaviest either of record or tradition.

As a consequence of these excessive rains, the usually dry ravines were swollen to torrents, which, in Utah especially, did great damage. The section director states: "Even the regions reporting the least rainfall report much damage by floods, and the counties receiving the heaviest rains had their roads, fields, irrigation systems, and, in places, their farm buildings devastated, entailing an enormous loss." In Arizona the rains, although locally destructive were generally beneficial by sustaining and insuring the continuance of the water supply.

As is usually the case in rainy months, there was an excess of cloudiness and humidity, and a deficiency of sunshine and wind movement, especially at the higher levels. There have been very few summer months with so few clear days.

The average precipitation for the entire district, the mean of 181 stations, is 3.68 inches. By watersheds the means are: Green, 2.50 inches; Grand, 2.93 inches; San Juan, 4.90 inches; Little Colorado, 4.48 inches; Gila, 3.31 inches; lower Colorado and its minor tributaries, 5.55 inches. The departures from the normal are: Green, +1.07 inches; Grand, +0.80 inch; San Juan, +2.70 inches; Little Colorado, +1.78 inches; Gila, +1.22 inches; lower Colorado, +3.93 inches.

TABLE 1.—Climatological data for August, 1909. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, .01 inch or more.	Number of clear days.			Number of partly cloudy days.	Number of cloudy days.
<i>Wyoming.</i>																				
Daniel	Uinta	6,740	10	58.6	+ 3.8	83	14†	25	28	51	1.17	+ 0.03	0.57	0.0	3	8	21	2	nw.	J. M. Van Dervort.
Dixon	Carbon																			Carey O. Morgan.
Eden	Sweetwater	6,577		64.6		92	15	34	35	50	0.79		0.60	0.0	8	16	9	6	w.	Eden Valley L'd & Ir. Co.
Fontenelle	Uinta	6,400	3																	C. W. Holden.
Green River	Sweetwater	6,083	4	69.5		98	14	39	3	51	0.70		0.43	0.0	6	12	10	9	w.	Geo. H. Maxom.
Kendall	Fremont	7,630																		Art. Doyle.
Pinedale	do.	7,167	3																	Forest Service.
Willow Creek Cabin	do.	7,500	1	59.0		75	14†	28	28	39	3.51		1.52	0.0	11	12	8	9	nw.	John L. Allen.
<i>Colorado.</i>																				
Ashcroft	Pitkin	9,483	8	55.7		79	9	36	3†	40	4.88		1.85	0.0	24					Dan McArthur.
Breckenridge	Summit	9,536	19	53.8	+ 0.4	77	15	31	15	46	5.81	+ 3.61	1.75	0.0	20	1	14	16	se.	Mrs. J. G. Thompson.
Cascade	San Juan	8,900	3										0.98	0.0	27	4	5	23	e.	San Juan P. & W. Co.
Chromo	Archuleta	7,500	3	62.5		88	7	41	5	44	4.86		0.80	0.0	23	4	20	7	sw.	Lawrence Nolan.
Cochetopa	Saguache	9,088											0.66	0.0	23	0	19	12	w.	Bessie McDonough.
Collbran	do.	6,000	16	67.8	- 0.1	89	14	50	3	37	2.12	+ 0.77	0.28	0.0	17	12	16	3	sw.	A. A. Wood.
Columbine	Routt	8,766																		Jas. H. Caron.
Columbine Ranch	Delta	6,925																		Geo. W. Wade.
Corona	Grand	11,660	2	48.4		64	15	34	29	24	5.25		1.10	0.0	18				w.	U. S. Weather Bureau.
Crawford (near)	Montrose	6,800		67.6		89	14	52	2†	30	1.63		0.30	0.0	20	10	21	0		C. W. Roe.
Crested Butte	Gunnison	8,867											0.60	0.0	18	5	2	24	w.	Charles L. Ross.
De Beque	Mesa	4,935																		C. M. Payne.
Delta	Delta	4,965	18	74.0	+ 1.8	99	14	51	3	42	1.52	+ 0.14	0.33	0.0	13	15	16	0		E. M. Getts.
Dillon	Summit	8,800											0.47	0.0	18	8	23	0	n.	Harry T. Hamilton.
Dolores	Dolores	8,500		68.8		90	1	52	3†	34	4.81		0.56	0.0	19	4	16	11	sw.	Geo. R. Simmons, jr.
Dunkley	Routt	7,400	3	67.4		92	14	52	20	31	1.30		0.30	0.0	7	7	14	5		Geo. W. Dunkley.
Durango	La Plata	6,534	16	66.8	+ 0.5	86	22	48	5	35	3.54	+ 1.75	0.98	0.0	15	2	25	4	nw.	U. S. Weather Bureau.
Eagle	Eagle	6,598	4	64.5		92	17	40	2†	44	2.71		0.72	0.0	8	13	16	2	w.	J. M. Witteman.
Eureka	San Juan	10,000	2										0.90	0.0	19					San Juan P. & W. Co.
Fruita	Mesa	4,510	10	73.8	+ 0.5	100	14	51	3	42	1.39	+ 0.22	0.40	0.0	9	9	16	6		J. B. Willsea.
Gladstone	San Juan	10,400	3										1.05	0.0	26	0	29	2	ne.	San Juan W. & P. Co.
Glenwood Springs (near)	Garfield	5,823	11																	E. A. O'Neill.
Grand Junction	Mesa	4,608	18	76.1	+ 0.1	99	14	61	5	31	0.86	- 0.24	0.22	0.0	12	10	15	6	e.	U. S. Weather Bureau.
Grand Lake	Grand	8,153											1.00	0.0	3	21	4	6		Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	17	72.5	+ 1.1	98	14†	48	5	47	2.00	+ 1.01	0.51	0.0	19	25	3	3		David Evans.
Gunnison	Gunnison	7,670	16	63.4	+ 3.9	87	26	42	1†	40	1.88	+ 0.58	0.34	0.0	13	4	12	15	sw.	Clarence Adams.
Hayden	Routt	6,337		66.2		92	15	40	1†	49	3.62		0.68	0.0	11	17	6	8	ne.	C. W. Harkness.
Hesperus	La Plata	8,370	11										0.72	0.0	9	13	9			John S. Spear.
Horsefly	Montrose	8,700																		Lawrence J. Finch.
Ignacio	La Plata	6,425											1.30	0.0	16	3	18	10	sw.	Elizabeth Schalles.
Ironton	Ouray	10,000																		P. H. Foley.
Kremmling (near)	Grand	7,337	1	62.2		88	1†	40	26	46	4.00		0.85	0.0	16	9	12	10		H. A. Howe.
Lake City	Hinsdale	8,686	4	59.9		81	15	41	7	34	2.70		0.57	0.0	19	0	16	15	s.	W. H. Ogle.
Lay	Routt	6,190	15	65.7	- 0.1	93	14†	38	4†	50	1.71	+ 0.86	0.44	0.0	12	12	1	18		A. G. Wallihan.
Lujan	Montrose	6,620	3	70.4		92	3	51	8	35	1.99		0.35	0.0	13	9	8	14	sw.	T. T. Richards.
Manitou	Montezuma	6,960	10	64.6		84	5	44	14	38	6.15	+ 3.89	1.15	0.0	19	2	25	4	se.	B. M. Krumantzky.
Marble	Gunnison	7,951		61.2		82	5†	38	3	41	5.13		0.80	0.0	18	9	15	7	ne.	Homer Harrington.
Marshall Pass	Saguache	10,346	6										0.50	0.0	14	15	9	7	w.	William D. Lillard.
Meeker	Rio Blanco	6,182	17	63.9	- 0.3	88	14	39	3	42	2.91	+ 1.50	0.65	0.0	11	8	14	9		T. Baker.
Montrose (near)	Montrose	5,811	20	66.6	- 0.9	90	14	47	3†	39	2.30	+ 0.98	0.75	0.0	18	6	24	1		R. Butterfield.
Nast	Pitkin	7,953											0.86	0.0	12	8	18	5	w.	Arthur Hanthorn.
Pagoda	Routt	6,500	18	64.6	+ 1.1	90	14†	38	3	46	2.57	+ 1.07	0.85	0.0	7	19	9	3		Shaw Brothers.
Pagosa Springs	Archuleta	7,108	2	64.0		85	17	44	5	37	4.69		0.81	0.0	19	2	13	11		E. T. Walker.
Paonia	Delta	5,694	8	73.0		96	14	54	3†	39	1.92	+ 0.77	0.98	0.0	9	6	25	0	sw.	J. M. Underwood.
Parshall	Grand												0.60	0.0	9					F. A. Field.
Pitkin	Gunnison	9,500											0.65	0.0	13	7	23	1		Mrs. Maggie Cammann.
Rangely	Rio Blanco	5,050	10	70.4	+ 5.8	97	14†	43	4	48	2.31	+ 0.92	0.93	0.0	9	7	13	11	w.	Mrs. C. P. Hill.
Red Cliff	Eagle	8,695	14										0.90	0.0	9	14	6	11		Dorothea Greiner.
Rico	Dolores	8,824	8																	Clinton B. Smith.
River Portal	Montrose	6,570	3	68.3		93	13	49	2†	39	2.16		0.53	0.0	12	1	14	16		J. Dill.
Sapinero	Gunnison	8,125	9	69.9		82	14	40	5†	37	2.06		0.32	0.0	19	10	16	5	w.	W. F. Irving.
Silt	Garfield	5,441	13	67.2	- 2.4	96	14†	43	27†	50	1.00	- 0.22	0.22	0.0	11	10	17	4	w.	W. S. Park.
Silverton (1)	San Juan	9,285	5	56.3		78	13	38	5	36	4.52		0.84	0.0	19	0	17	14	nw.	V. E. Kerr.
Silverton (2)	do.	9,400	3	55.0		79	15	38	5†	33	4.51		0.52	0.0	20	0	11	20	ne.	San Juan P. & W. Co.
Spruce Lodge	Grand	9,600	1										0.78	0.0	18					H. J. Wills.
Steamboat Springs	Routt	6,683											0.52	0.0	8	26	3	3		M. Elliot Houston.
Tacoma	La Plata	7,300	3	65.4		85	22	49	5	30	4.26		0.85	0.0	22	3	12	16		San Juan P. & W. Co.
Terminal Dam	do.	8,300	3										0.75	0.0	37	3	25	3	s.	Do.
Uncompahgre Plateau	Montrose	8,400																		Martin Esser.
Whitepine	Gunnison	9,500	8	53.3		71	5†	32	30†	34	5.00		2.00	0.0	10	3	24	4	s.	C. E. Macy.
Yampa	Routt	8,000											0.62	0.0	14	2	19	10	se.	Percy A. Hughes.
<i>Utah.</i>																				
Aneth	San Juan	4,800	8																	Maude A. Palmer.
Baker	do.	7,580											2.40	0.0	7	18	4	9	nw.	E. H. Wolf.
Basin	Grand	9,500											0.84	0.0	16	9	15	7	sw.	James Jeffs.
Castle Dale	Emery	5,500	10	68.6	+ 1.2	93														

TABLE 1.—Climatological data for August, 1909. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.		Number of cloudy days.	Prevailing wind direction.
<i>Utah—Cont'd.</i>																			
Teasdale ¹	Wayne.....	7,000	1	65.7		89	3†	47	1	38	3.07		1.00	0.0	9			Jostah Shurtz.	
Theodore.....	Wasatch.....	5,507	4	68.0		91	13	41	3	46	2.38		0.75	0.0	15	6	19	L. Claire Winslow.	
Tropic.....	Garfield.....	7,000	12	67.5	+ 1.7	92	14	41	4	46	5.39	+ 3.92	1.92	0.0	16	3	18	E. P. Bolton.	
Vernal.....	Uinta.....	5,380	14	70.6	+ 0.8	93	15	51	1†	39	1.97	+ 1.34	1.00	0.0	9	23	7	Joab Collier.	
Wellington.....	Carbon.....	5,540	10	66.0	- 2.8	88	28†	41	3	45								Melvillie Branch.	
<i>New Mexico.</i>																			
Blackrock.....	McKinley.....		2	69.9		90	23	52	15†	33	2.83		0.63	0.0	16	0	31	0	Wm. J. Oliver.
Bloomfield.....	San Juan.....	5,500	13	73.6	+ 0.9	98	14	54	7	38	4.44	+ 2.97	1.60	0.0	15	2	25	4	Fred Le Clerc.
Cambray.....	Luna.....	4,315	11			90	15†	45	5	40	4.55	+ 1.11	1.05	0.0	3	0	31	0	Agent, Southern Pac. Ry.
Cliff.....	Grant.....	4,470	11	78.6	+ 1.8	107	11†	51	38	49	2.32	- 0.27	0.94	0.0	8				T. J. Clark, sr.
Columbus.....	Luna.....	4,054									2.57		0.85	0.0	9	9	19	3	Agent, E. P. & S. W. R. R.
Deming.....	do.....	4,333	33	74.4		98	1†	55	25	38	1.58	- 0.38	0.40	0.0	8	12	16	3	Agent, Southern Pac. Ry.
Dulce.....	Rio Arriba.....	6,767	3	67.2		90	15†	45	5	40	4.55		0.50	0.0	16	15	16	0	W. A. Fuller.
Fort Bayard.....	Grant.....	6,152	35	70.9	- 0.2	89	8†	53	17	33	3.65	+ 0.72	0.95	0.0	16	24	6	1	U. S. A. Gen'l Hospital.
Fort Wingate.....	McKinley.....	6,997	46	65.5	- 3.7	85	13	41	3	38	5.40	+ 3.00	1.30	0.0	18	2	12	17	Medical Corps, U. S. A.
Frisco.....	Socorro.....	5,800	3	71.5		91	1†	54	18†	36	4.27		1.70	0.0	10	1	29	1	John R. Milligan.
Fruitland.....	San Juan.....	4,800	17	74.0	+ 1.1	98	1†	49	17	44	2.25	+ 1.61	1.05	0.0	10	8	20	3	Cyril Jas. Collyer.
Gags.....	Luna.....	4,486	8	75.7		97	1	52	18	39	1.97		1.20	0.0	5	0	24	7	Agent, Southern Pac. Ry.
Hachita.....	Grant.....	4,504									4.77		1.88	0.0	12	10	14	7	Agent E. P. & S. W. R. R.
Hermance.....	Luna.....	4,451									2.72		0.51	0.0	10	0	22	0	Do.
Lordsburg.....	Grant.....	4,245	10	78.4	+ 2.3	98	2	59	25	36	2.36	+ 0.67	0.65	0.0	8	3	14	15	Agent Southern Pac. Ry.
Luna (near).....	Socorro.....	7,300	5	63.3		82	26	45	30†	33	3.49		0.86	0.0	12	1	30	0	C. B. Martin.
Manuelito.....	McKinley.....	6,252	5	70.8		93	1	48	2	44	7.55		3.00	0.0	12	0	9	22	W. A. L. Tarr.
Mimbres.....	Grant.....	5,007	3								3.33		0.48	0.0	14	16	1	1	Charles Dennis.
Pratt.....	do.....	4,415									4.73		1.00	0.0	20	0	11	0	Agent, E. P. & S. W. R. R.
Redrock.....	do.....	4,150	5								3.97		1.25	0.0	9	5	24	2	Robt. H. Woods.
Rodeo.....	do.....	4,118	1								2.59		0.59	0.0	19	23	9	0	Agent, E. P. & S. W. R. R.
Rosa.....	Rio Arriba.....	6,000	5															B. A. Candelario.	
<i>Arizona.</i>																			
Allaire's Ranch.....	Cochise.....	4,184	13								6.41	+ 3.40	2.70	0.0	17	8	6	17	Thos. Allaire.
Arizona Canal Dam.....	Maricopa.....	1,372	9	87.9	- 0.6	106	22†	72	5†	32	1.12	- 0.37	0.43	0.0	6	4	12	15	U. S. Reclam't'n Service.
Astee.....	Yuma.....	492	9	91.6	- 3.2	112	11†	71	31	37	1.95	+ 1.43	1.18	0.0	7	7	17	7	Agent, Southern Pac. Ry.
Benson.....	Cochise.....	3,523	26	78.4	- 3.2	98	27	62	15†	34	3.71	+ 1.44	0.80	0.0	9	2	11	18	Do.
Biabe.....	do.....	5,500	19	69.8	- 2.8	85	23	57	18	26	9.59	+ 4.73	1.72	0.0	22	9	16	6	Rev. J. G. Pritchard.
Bonita.....	Graham.....	4,916	30								2.64	- 0.17	0.60	0.0	9	3	18	10	A. Johnson & Co.
Bowie.....	Maricopa.....	3,756	9	79.4	+ 0.9	99	2	62	18†	32	4.76	+ 0.29	1.07	0.0	12	5	11	15	Agent, Southern Pac. Ry.
Buckeye.....	Maricopa.....	980	17	89.0	+ 1.7	110	11	71	10	36	1.09	+ 0.24	0.37	0.0	8	8	18	5	H. E. Kell.
Casa Grande.....	Pinal.....	1,396	28																Agent, Southern Pac. Ry.
Casa Grande Ruins.....	do.....	1,423	1	87.8		107	13	70	15†	35	1.93		1.20	0.0	7	6	17	8	F. Pinkley.
Cavecreek.....	Maricopa.....	1,520	2	84.4		105	23	66	16	38	2.08		1.11	0.0	6	9	20	2	E. H. Howard.
Chin Lee.....	Apache.....	6,090	1	72.8		90	14†	56	26	32	3.67		0.69	0.0	17	9	12	10	Fr. L. Osterman, O. F. M.
Chlarsons Mill.....	Graham.....	8,000	4	63.7		79	11	52	17	24	9.40		2.30	0.0	17	4	11	16	H. R. Chlarson.
Clifton.....	do.....	3,584	17	83.0		103	22	66	9	30	2.37	- 0.18	1.00	0.0	10	13	17	1	W. B. Cramer.
Cilms.....	Gila.....	2,300	8	82.2		100	20	60	12	39	3.61	+ 0.10	1.10	0.0	10	0	21	10	W. M. Clanton.
Cochise.....	Cochise.....	4,219	11	77.9	+ 1.8	93	14	62	17	30	2.87	+ 0.81	1.37	0.0	8	2	18	11	Agent Southern Pac. Ry.
Columbia.....	Yavapai.....	1,900	9	86.8		105	23	70	7	25	1.49		0.65	0.0	9	5	13	13	M. J. Nolan.
Congress.....	do.....	3,688	13	80.1	- 3.3	97	22	64	19†	27	5.59	+ 3.41	1.28	0.0	10	7	12	3	Assayer, Congress Mine.
Dos Cabezos.....	Cochise.....	5,250	1	74.3		94	21	54	24	36	2.31		0.62	0.0	6	4	20	7	N. Erickson.
Douglas.....	do.....	3,930	6	78.4		99	23	57	26	37	4.03		1.21	0.0	18	6	23	2	Dr. F. T. Wright.
Dudleyville.....	Pinal.....	2,204	18	80.6	- 1.6	98	11	65	18	28	4.25	+ 1.67	1.13	0.0	20	1	23	8	G. F. Cook.
Flagstaff (1).....	Coconino.....	6,907	17	62.8	0.0	83	22	47	27	33	6.73	+ 3.43	1.22	0.0	21	3	13	15	U. S. Weather Bureau.
Flagstaff (2).....	do.....	7,452	4	60.2		80	1	44	28	33	9.73		1.13	0.0	27	0	26	5	C. C. Moers.
Flagstaff (3).....	do.....	7,500	1	61.0		80	1†	44	21	34	5.83		1.39	0.0	17	2	18	11	U. S. Forest Service.
Floreano.....	Pinal.....	1,504	9	88.9		109	12†	71	5†	38	3.61	+ 1.59	1.20	0.0	10	9	13	9	Agent, P. & E. R. R.
Fort Apache.....	Navajo.....	5,200	30	73.0	+ 0.5	98	7	50	4	38	2.98	- 0.43	0.49	0.0	16	14	16	1	Post Surgeon.
Fort Huachuca.....	Cochise.....	5,100	23	76.6	+ 2.8	97	23	59	18	25	3.32	+ 1.14	1.32	0.0	17	12	9	10	se.
Fort Mohave.....	Mohave.....	604	20	94.0	+ 1.3	115	8	74	16	36	4.42	+ 3.73	2.02	0.0	5	25	0	6	Do.
Gilaband.....	Maricopa.....	737	18	88.8	- 2.9	113	23	55	12	44	2.87	+ 1.78	1.25	0.0	5	15	9	7	Agent, Southern Pac. Ry.
Globe.....	Gila.....	3,525	8	79.4		98	21†	64	5†	33	2.01		0.33	0.0	14	0	28	3	Dr. B. G. Fox.
Grand Canyon (1).....	Coconino.....	6,866	5																Agent, Santa Fe R. R.
Grand Canyon (2).....	do.....	3,676	3	77.8		100	14	62	9	33	4.76		1.46	0.0	12	5	5	21	C. C. Spaulding.
Grser.....	Apache.....	9,300																	Mrs. M. Butler.
Holbrook.....	Navajo.....	5,069	18	74.8	0.0	96	14	56	29†	40	2.70	+ 1.23	0.59	0.0	12	19	11	1	Thorwald Larson.
Intake.....	Gila.....	2,230	4								1.35		0.61	0.0	6	3	15	13	A. H. Neal.
Jerome.....	Yavapai.....	4,743	12																Dr. L. A. Hawkins.
Keams Canyon.....	Navajo.....		4	89.2		87	14	54	19	29	4.14		0.65	0.0	16	1	30	0	L. R. Ballard.
Kingman.....	Mohave.....	3,326		79.4		105	3	55	27	46	3.77		2.27	0.0	7	7	20	4	G. R. Gooding.
Maricopa.....	Pinal.....	1,186	29	90.0	- 1.9	114	20	70	12†	39	1.70	+ 0.71	1.50	0.0	2	7	21	3	Agent, Southern Pac. Ry.
Mesa.....	Maricopa.....	1,244	14	87.6	+ 0.1	106	27	70	8†	33	3.90	+ 2.42	0.96	0.0	7	4	21	6	C. L. Diehl.
Mohawk Summit.....	Yuma.....	538	9	89.0	- 5.3	118	2†	65	6†	47	3.02	+ 2.06	2.60	0.0	3	19	12	0	Agent, Southern Pac. Ry.
Natural Bridge.....	Gila.....	4,990	20								7.38	+ 4.16	1.40	0.0	14	4			

TABLE 1.—Climatological data for August, 1909. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days .01 inch or more.	Number of clear days.	Number of partly cloudy days.		Number of cloudy days.	Prevailing wind direction.
<i>Arizona—Cont'd.</i>																				
Thatcher.....	Graham.....	2,800	...	80.8	.....	103	22	60	1†	40	4.62	.....	1.01	0.0	13	5	12	14	se.	Prof. J. H. Larson.
Tombstone.....	Cochise.....	4,550	14	74.9	- 0.8	94	22	60	17	28	5.33	+ 1.97	1.05	0.0	16	7	23	2	.....	F. N. Walcott.
Tuba.....	Coconino.....	4,500	9	74.3	.....	97	14	56	12	37	1.66	.....	0.40	0.0	10	1	17	13	ne.	G. H. Kraus.
Tucson (1).....	Pima.....	2,380	29	82.8	- 2.5	102	26	62	16	35	1.36	- 1.07	0.61	0.0	9	1	30	0	nw.	University of Arizona.
Tucson (2).....	do.....	2,380	1	83.3	.....	102	1	62	27	38	3.70	.....	1.26	0.0	6	3	24	4	sw.	H. G. Brown.
Upper San Pedro.....	Cochise.....	5,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. T. Stuart.
Vail.....	Pima.....	3,421	11	80.2	- 1.4	98	26	60	16	36	2.62	+ 1.80	0.80	0.0	6	1	23	7	.....	Agent, Southern Pac. Ry.
Walnut Grove.....	Yavapai.....	3,649	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. O. Carter.
Wickenburg.....	Maricopa.....	3,072	2	87.3	+ 2.5	108	4	65	26	33	2.36	+ 0.41	0.62	0.0	13	8	14	9	sw.	Agent, P. & P. R. R.
Willcox.....	Cochise.....	4,164	29	76.6	- 2.0	95	23	59	26	34	4.16	+ 1.58	1.32	0.0	12	6	7	18	s.	Agent, Southern Pac. Ry.
Williams.....	Coconino.....	6,750	10	68.5	+ 0.8	89	13	48	3†	34	6.46	+ 3.40	1.28	0.0	22	3	12	16	ne.	H. Victor.
Winslow.....	Navajo.....	4,853	1	75.6	.....	98	13	55	22	40	2.79	.....	0.78	0.0	14	2	16	13	.....	L. C. Henning.
Yarnell.....	Yavapai.....	4,700	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Bartholomew.
Yuma (1).....	Yuma.....	141	30	88.4	- 1.7	110	11	71	16	35	6.25	+ 5.90	4.01	0.0	7	22	6	3	s.	U. S. Weather Bureau.
Yuma (2).....	do.....	150	2	87.4	.....	110	11	61	2	40	6.37	.....	4.12	0.0	8	6	21	4	sw.	E. L. Crans.
<i>Nevada.</i>																				
Caliente.....	Lincoln.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Las Vegas.....	Clark.....	2,033	2	84.3	.....	108	12	58	24	46	1.78	.....	0.74	0.0	3	6	19	6	nw.	Agent, Salt Lake Route.
Logan.....	do.....	1,700	3	85.4	.....	108	3	60	3	48	1.86	.....	0.62	0.0	7	8	10	13	s.	Roy M. Filcher.

* Precipitation included in that of the next measurement.
 • Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
 † Also on other dates.
 ‡ Data are from standard instruments not supplied by the U. S. Weather Bureau.
 § Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
 ¶ Estimated by observer.
 || Precipitation for the 24 hours ending on the morning when it is measured.
 T. Precipitation is less than 0.01 inch rain or melted snow.
 a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—Daily precipitation for August, 1909. District No. 9, Colorado Valley.

Stations.	River basins.	Day of month.																															Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Wyoming.																																				
Daniel	Green	T.	T.		T.		.40		T.		T.		T.		T.		.20							T.	.27	1.17										
Dixon	do																																			
Eden	do	.03			.01	T.			.01	.04		T.				.05				.03	T.		.02											.60	0.79	
Fontenelle	do																																			
Green River	do		T.			T.			.04		T.	.43				.13	T.				.03		.04	.03											T.	0.70
Kendall	do																																			
Pinedale	do																																			
Willow Creek Cabin	do		T.			.20	.10	.35		.05		.03	T.	.27	T.	T.	.24		1.52	T.			.15	.25										.35	3.51	
Colorado.																																				
Ashcroft	Grand	.08	.06			.01	.03	.15	.07	.06	.85	.61	.06	.01	T.	.17	.06	.06	.07	.36	.02		.15	.10	.02		T.	.11	.20	.29	.28	4.88				
Breckenridge	do	.36	.20	.04	T.	.07	.12	.08	.15	.50	.10	.05				.12	.78	.75	.03	.06	.06	.10	.33	.10	.33	.02	T.	.11	.22	.42	.32	5.81				
Cascade	San Juan	.16	.07	.04	.04	.07	.40	.17	.01	.05	.10	.24	.07	.07	.72	.24	.15	.23	.40	.17	.07	.98	.55	.27	.37	.32	.67	.45	.14	.77			4.06			
Chromo	do	.04		T.	.50	T.	.43	T.	.04	.03	.10	.04	.38	.09	.80	.18	.15	.12	.10	.04	.36		.35	.04	.36									4.86		
Cochetopa	Gunnison	.11	.16	.09			.04	.03	T.	.02	.14	.04	.01	.04	.01	.03	.17	.25	.58	.11	.07	.07	.06	T.	.10	.04							.30	3.22		
Collbran	do	.02	.08			.15	.26	.07	.01	.12						.27	.18	.28	.01	.10	T.		.10	.04										.24	1.12	
Columbine	Yampa																																			
Columbine Ranch	Gunnison																																			
Corona	Grand			.62		.14	.06	.42	.40		.64	.12	.24	.22		.33	.50	.10	.08		.04	.04												5.25		
Crawford	Gunnison	.24	.11			.07	.07	.01	.02	.04	.06		.12	.10	.02	.02	.02	.05	.04	.05	.04	.06	.05	.06	T.	.20	.10							1.63		
Crested Butte	do		.20			.10		.12		.60		.20		.10		.07	.05	.05	.04	.06	.05	.06	T.	.20	.10									2.33		
De Beque	Grand																																			
Delta	Gunnison	.03	.05			.27	.03	.09		.09		.03	.03	.06	.05	T.	.17	.33		T.	T.	.07	.05	.04	T.	.13	.07							1.52		
Dillon	Grand	.20		.25	T.	T.	.27	.04	.35	.05	.04	.47	.25	.06	.05	T.	T.	.07	.02	.25	.04	T.	.04	T.		T.	.02	.40	T.	.10	.15	.07	2.85			
Dolores	Dolores			.32		.15		.24		.44	.05	.22	.05	.37	.56	.11	.29	.04	.08	.11			.34	.52										4.81		
Dunkley	Yampa		.20								.10																								1.30	
Durango	San Juan	.02	T.	T.	.07	.07	.09	.02			T.		T.		.56	.01	.42	.65	.56		.04	T.	T.	T.	.05	.26								3.54		
Eagle	Grand		.28			.32		.73	.17	T.		T.			.41	.02	.65		.04	T.		.11	T.	.13	.05	.26								2.71		
Eureka	San Juan			.70		.34		.53	.14	.90		.29		.10		.13		.11		T.	.19	.70	.14	.13	.05	.30	.19	.90	.15	.11	.11	.62	6.24			
Fruita	Grand	.10				.06	.10	.28	T.		.08	T.			.25	.02			T.	T.	T.	T.	.10	.10										1.39		
Gladstone	San Juan	.08		1.09		.05	.35	.64	.38	.09	.02	.08		.40	.32	.02	.05	.05	.05	.08	.02	.28	.15	.55	.02	.07	.24	.28	.26	.25	.11	5.96				
Glenwood Springs	Grand																																			
Grand Junction	do	.09			T.	T.		.11	.02	.01		T.	.04	.01		.85		T.	.22	T.	.09	T.	T.	.01	.18	.01		T.	T.	T.	1.00	.75	T.	2.60		
Grand Lake	do		.01																																2.00	
Grand Valley	do	.11	.01			.07	.01	.07	.03	.15	.22	.02	.02		.12	.05	.06	.18	.09	T.	T.	T.	.12	T.	.09		T.	T.	T.	.51	.02	.07	2.00			
Gunnison	Gunnison	.03	.32	T.				.15	.34	.18			.03			.02	.02	.29																	1.88	
Hayden	Yampa						.45	T.				.33		.11		.12	.18	.15			.29													3.62		
Hesperus	San Juan	.12	.01	T.	.05	.04	T.	.17	.18	.55	.06	T.	.16	.21	.79	.50	.05	.59	T.	.17			T.	.01	.31	.26	T.	.64	.66	.09	5.64					
Horsefly	Gunnison																																			
Ignacio	San Juan	.04		.04	.22		.05	.05		.02		T.	.30		.50		.62		T.				.90	.30		.03	1.30	.75	.50	.05	5.67					
Ironton	Gunnison																																			
Kremmling	Grand					.40	T.	.10	.05	.45	.01	T.	.13	.51		.85	.72				.10		.12	.01										4.00		
Lake City	Gunnison	.04	.12	.50	T.	T.		.14	.20	T.		.25	.07	.12	T.		.04	.05	T.	.04	.16	.04	.18	.10	.08	.10	.04							2.70		
Lay	Yampa		.07			.14		.18	.06							.04	.05	T.	.04		.08		T.												1.71	
Lujane	Gunnison		.20			.10	.25	.05	.30			.10		.20	.05		.30	.05		T.														1.99		
Mancos	San Juan	.15		.49	.58		.06	.25	.08	T.	.46		.30	.43		.30	.34			.05		1.15	.12	.28	.26	.12	.22	.32	.15	6.15						
Marble	Grand	.56				.32		.60	.30	.55	.80		.14	.58		.27		.02		.05		.05												5.13		
Marshall Pass	Gunnison		.30	.50		.10	.21	.33		.20							.21		.18	.23														2.79		
Meeker	White	.08	T.			.12	.14	.35	.25						.55		.49		.65															1.81		
Montrose	Gunnison	.18	T.			.75	.01	.17	T.	T.	.05		.18	T.	.16	.12	.06	.02			.10	.03		.18	.09	.08	.03	.02	.07	2.30						
Nast	Grand		.35			.25	.31	.11	.01		.07	.15			.15	.30	.76	T.	T.	T.	.04	T.		.17										3.17		
Pagoda	Yampa	.35	T.													.30	.76	T.	T.	T.	.04	T.												2.57		
Pagosa Springs	San Juan	.09	.16		.61	.07	.05		.02	.09	.22	T.	T.	T.	.52	.10	.08	.69	.25															4.69		
Paonia	Gunnison	.20	.05			.09		.98	T.						.32	.03	T.	T.	T.	T.			.06		.40	T.	.27	.01	.81	.15	.10		1.92			
Parshall	Grand	.16				.45	.05			.60					.16	.42							.06												4.69	
Pitkin	Gunnison	.20		T.		.30	T.	.65	T.	.21					.16	.23		.20	.10															3.54		
Rangely	White	.02				.11		.22	.40	T.					.09	T.			.93	.30															2.31	
Redcliffe	Grand				T.	.60	.30		T.						.60	.10	.90	.40																	3.66	
Rico	Dolores																																			
River Portal	Gunnison	.34			T.	.08		.09	.08			.53	.37		.07	.13	.04		.03				.05	.02		.03	.14		.12	.10	.23	2.16				
Sapinero	do	.30	.32			.01	.15	.06	T.	T.	.07	.10		T.	.07	.13	.04		.07	.06			.05	.02		.03	.14		.12	.10	.23	2.16				
Silt	Grand	.09	.15			.12	.02	.02										.15	.03			.03	.22											2.06		
Silverton (1)	San Juan	.10	.19			.06	.10	.15	.44		.16		.84	.21		.20	.10	.07			.09		.57		.40	.21		.30	.22	.11	4.52					
Silverton (2)	Grand	.02	.28	T.	.01																															

TABLE 2—Daily precipitation for August, 1909. District No. 9—Continued.

Stations.	River basins.	Day of month.																															Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
<i>Nevada.</i>																																				
Caliente.....	Colorado.....																																			
Las Vegas.....	do.....																																			
Logan.....	do.....					.21	T.																													

TABLE 3.—Maximum and minimum temperatures at selected stations, August, 1909. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.										Utah.								New Mexico.					
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchene.		Hite.		Moab.		St. George (Experiment station).		Fort Bayard.		Fort Wingate.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	60	48	84	57	78	56	89	61	78	42	84	43	35	96	56	95	76	92	66	96	50	87	60	80	55			
2...	63	45	81	48	83	52	87	62	79	45	75	49	38	99	53	99	64	94	58	100	55	88	60	80	55			
3...	72	32	90	39	90	51	91	61	73	42	81	39	34	93	45	102	65	98	53	103	63	87	65	80	55			
4...	73	35	91	45	77	50	92	63	80	48	82	42	38	91	44	99	74	98	63	102	69	83	69	69	50			
5...	79	40	92	50	82	58	92	61	75	49	81	53	36	95	50	98	75	97	60	102	67	84	56	73	54			
6...	78	41	79	53	82	58	78	66	80	52	69	50	36	88	53	91	71	87	66	92	68	85	60	76	56			
7...	73	45	89	55	84	49	87	63	81	47	74	57	55	88	55	95	67	92	61	95	63	87	70	75	54			
8...	78	44	90	51	85	53	86	62	84	48	81	47	45	89	56	97	67	94	60	97	64	89	65	80	56			
9...	73	46	90	50	81	55	87	67	82	46	79	54	50	89	55	93	66	93	67	89	65	85	65	77	54			
10...	79	52	86	55	77	55	88	66	82	47	78	52	50	90	53	97	66	91	61	97	64	85	65	80	54			
11...	78	35	89	54	82	51	93	69	77	49	80	50	47	93	52	99	75	95	62	97	65	85	60	78	55			
12...	82	40	87	53	85	57	86	66	80	45	80	51	47	95	55	97	73	94	65	102	65	86	65	80	55			
13...	81	45	90	52	84	54	93	68	81	43	85	49	46	94	54	103	71	100	63	104	64	89	70	85	55			
14...	83	46	98	49	85	57	99	68	84	45	88	48	44	97	56	106	71	103	61	102	75	81	69	84	57			
15...	83	36	97	54	83	60	94	70	84	44	87	48	45	95	50	98	78	97	68	107	72	84	50	80	54			
16...	76	50	77	59	81	59	85	68	81	43	79	54	60	88	50	95	73	91	67	85	70	85	56	81	55			
17...	82	44	82	59	85	53	86	65	84	49	80	55	53	89	50	96	67	92	60	87	63	80	53	79	54			
18...	82	45	81	53	83	58	87	65	83	43	79	47	45	90	61	90	65	91	63	92	68	84	57	78	52			
19...	82	42	90	61	77	52	81	65	80	42	72	50	45	87	60	91	70	91	66	94	65	80	56	78	54			
20...	80	43	89	47	70	55	84	64	79	45	76	54	40	86	55	91	71	87	64	97	69	82	55	74	50			
21...	76	41	84	48	82	52	89	62	78	49	79	50	39	86	56	97	71	91	63	100	66	77	65	76	52			
22...	74	42	92	54	86	51	90	62	80	47	82	45	40	89	58	99	68	97	61	102	64	75	65	84	52			
23...	78	44	89	51	80	52	90	65	82	46	83	47	40	91	53	98	68	95	61	93	60	86	54	78	54			
24...	72	32	88	48	77	57	87	64	84	72	79	52	50	89	55	98	74	95	61	104	62	83	52	77	56			
25...	80	30	92	42	82	51	93	63	85	54	80	43	41	91	45	101	69	97	57	104	69	87	52	73	52			
26...	83	34	92	45	80	58	91	63	87	53	82	41	36	94	45	98	69	97	60	93	64	86	53	77	50			
27...	75	37	87	48	79	51	86	64	82	42	75	51	40	88	54	96	74	94	59	100	63	82	50	79	54			
28...	72	25	88	48	76	51	92	62	80	44	78	40	36	89	46	97	68	95	57	102	65	80	50	79	52			
29...	81	30	90	47	61	54	81	64	78	42	80	40	38	88	50	87	66	83	63	102	68	65	50	73	54			
30...	80	39	88	50	68	55	82	68	72	53	76	55	51	85	54	85	64	84	64	98	58	79	53	70	54			
31...	69	40	79	52	76	55	76	64	71	42	70	54	47	80	60	89	67	82	64	99	66	82	53	82	54			
Mns	76.8	40.3	87.8	51.2	79.7	53.9	87.8	64.5	80.4	46.4	79.2	48.6	43.3	89.9	53.1	96.0	69.8	86.7	62.2	97.5	64.8	83.2	68.7	77.6	53.4			

Date.	Arizona.																							
	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		San Carlos.		Tucson.		Yuma.		Logan, Nev.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	80	59	74	53	88	59	.....	.....	108	76	102	78	83	64	80	58	102	64	96	74	105	74	104	65
2...	79	62	76	47	89	51	.....	.....	108	73	102	77	83	58	76	57	102	63	93	72	105	74	104	63
3...	79	61	75	51	84	54	.....	.....	110	74	103	77	80	56	80	58	97	59	96	77	104	77	108	60
4...	78	62	77	49	81	50	.....	.....	111	78	103	81	85	59	76	58	96	63	96	75	107	80	108	71
5...	75	62	74	52	83	54	.....	.....	105	65	86	70	71	59	80	53	90	61	83	74	94	73	107	68
6...	74	61	70	53	88	52	.....	.....	98	72	94	73	77	59	78	56	97	58	92	70	99	71	90	67
7...	80	61	70	52	98	61	.....	.....	105	75	99	78	80	59	83	56	98	64	95	70	102	75	100	67
8...	78	61	76	49	83	60	.....	.....	100	75	93	78	80	57	83	55	99	60	92	71	92	77	103	71
9...	76	59	72	54	85	60	.....	.....	96	73	95	70	79	59	78	56	101	61	93	71	103	76	97	77
10...	80	60	75	48	88	54	.....	.....	108	72	100	76	80	55	80	53	99	56	98	73	107	76	103	69
11...	81	63	76	53	90	61	.....	.....	113	76	105	76	84	59	83	58	99	66	100	74	110	75	105	70
12...	79	62	75	52	87	59	.....	.....	109	83	101	75	83	58	79	57	97	71	96	74	106	73	106	70
13...	75	60	80	52	84	60	.....	.....	107	80	99	77	85	62	85	61	95	73	92	70	102	81	107	70
14...	78	62	81	53	86	61	.....	.....	96	76	97	76	77	63	82	51	96	71	95	72	97	71	107	75
15...	77	63	70	56	83	59	.....	.....	90	70	91	74	72	62	84	57	96	72	90	66	101	76	97	70
16...	78	61	72	54	84	58	.....	.....	86	73	94	73	73	61	82	59	96	63	90	62	80	73	80	72
17...	78	60	75	49	86	56	.....	.....	100	71	96	74	74	80	56	82	57	99	70	91	68	93	90	70
18...	75	57	75	49	83	55	.....	.....	103	73	94	73	78	56	77	56	94	67	90	65	97	75	96	70
19...	81	60	75	49	87	57	.....	.....	106	76	98	74	79	55	76	54	98	68	84	69	99	77	97	74
20...	82	62	71	50	90	56	.....	.....	105	78	102	77	81	57	75	55	101	69	98	71	104	78	102	73
21...	83	63	77	52	91	55	.....	.....	108	77	103	80	84	57	80	57	104	68	100	73	103	79	103	72
22...	85	65	82	49	96	63	.....	.....	111	77	106	79	87	57	85	54	105	70	99	70	108	79	105	70
23...	79	62	75	51	86	62	.....	.....	100	73	101	71	71	85	59	85	97	71	88	75	97	77	106	67
24...	80	59	75	53	84	61	.....	.....	106	76	98	73	80	59	75	57	97	71	93	72	100	77	105	71
25...	82	61	75	49	90	58	.....	.....	108	77	97	76	82	59	77	57	103	71	98	73	101	74	107	70
26...	82	60	78	48	91	57	.....	.....	100	71	102	78	84	59	82	53	102	65	102	67	101	76	103	73
27...	82	62	78	47	92	58	.....	.....	108	70	104	76	85	54	77	56	101	66	101	67	105	75	102	70
28...	80	61	77	49	89	56	.....	.....	113	75	103	78	82	57	76	56	98	68	100	72	109	80	105	69
29...	70	62	62	55	75	60	.....	.....	108	84	97	84	78	61	70	50	87	68	88	72	108	89	102	76
30...	76	60	63	56	78	61	.....	.....	97	77</														